Listing of the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently amended) A method for the ~~local~~ delivery of a nucleic acid to the nerve cells of a mammal, comprising a step of directly contacting the nerve cells with (a) a negative-sense RNA viral vector or (b) cells comprising said vector, wherein said negative-sense RNA virus ~~belongs to the Paramyxoviridae family~~ is a Sendai virus comprising a Sendai viral genome and a foreign gene, wherein the foreign gene is inserted between the R1 and R2 loci of the Sendai virus.

2. (Original) A method of claim 1, wherein said nerve cells are the central nervous system cells.

3. (Original) A method of claim 2, wherein said central nervous system cells are ventricular ependymal cells.

4. (Original) A method of claim 2, wherein said central nervous system cells are hippocampus cells.

5. (Cancelled)

6. (Currently amended) A method of claim ~~5~~ 1, further comprising transient expression of said foreign gene.

7. (Canceled)

8. (Currently amended) A method of claim ~~5~~ 1, wherein said gene encodes a protein that acts on the hypothalamic nuclei.

9. (Currently amended) A method of claim ~~5~~ 1, wherein said gene encodes a protein capable of protecting the brain from ischemia selected from the group consisting of fibroblast growth factors, nerve growth factors, apoptosis inhibitors, heat shock proteins, peroxidases, and neurotrophic factors.

10. (Original) A method of claim 9, wherein said protein is neurotrophic factor.

11. (Currently amended) A method of claim ~~5~~ 1, wherein said foreign gene is selected from the group consisting of FGF-1, FGF-2, FGF-5, NGF, CNTF, BDNF, GDNF, p35, CrmA, ILP, bc1-2 and ORF 150.

12 - 15. (Cancelled)

16. (Currently amended) A ~~negative-sense RNA~~Sendai viral vector ~~used for the local delivery of a nucleic acid to the nerve cells by the method of claim 1~~comprising a

Sendai viral genome and a foreign gene, wherein the foreign gene is inserted between the R1 and R2 loci of the Sendai virus and the foreign gene encodes a protein capable of protecting the brain from ischemia selected from the group consisting of fibroblast growth factors, nerve growth factors, apoptosis inhibitors, heat shock proteins, peroxidases, and neurotrophic factors.

17. (New) The Sendai viral vector of claim 16, wherein the gene encodes a protein selected from the group consisting of FGF-1, FGF-2, FGF-5, NGF, CNTF, BDNF, GDNF, p35, CrmA, ILP, bc1-2, and ORF 150.

18. (New) The Sendai viral vector of claim 17, wherein the gene encodes a protein selected from the group consisting of FGF-1, FGF-5, and GDNF.

19. (New) The method of claim 2, wherein the delivery comprises intraventricular administration.

20. (New) The method of claim 2, wherein the delivery comprises intraspinal administration.

21. (New) The method of claim 11, wherein the foreign gene is selected from the group consisting of FGF-1, FGF-5, and GDNF.